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Kwang-Don Park

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EXAMINER

ALLI, IYABO

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,236	Applicant(s) PARK, KWANG-DON	
	Examiner IYABO S. ALLI	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims **1-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Haraszti et al.** (2007/0170257). (**'Haraszti'**)

As to claim 1, Haraszti discloses a random type recognition object for an identification apparatus, wherein identification particles **104** are irregularly distributed within a shape (Page 3, Paragraphs 46 & 52 and Figs. 1 and 2), and a positional value and a characteristic value of the identification particles distributed within the shape are recognized from one or a plurality of directions by means of separate recognition means (Page 3, Paragraphs 47 & 48 and Fig. 14).

Although, **Haraszti** does not disclose the shape being 3D, it would have been obvious to one skilled in the art at the time of the invention to know that the techniques disclosed for measuring the three-dimensional particles from the above object, allow the object under test to be either two or three dimensional shapes.

As to claim 2, Haraszti discloses a random type recognition object having identification particles irregularly distributed within a shape (Paragraph 52 and Figs. 1

and 2); and recognition means **1402/1404** for recognizing a positional value of the identification particles distributed in the random type recognition object from one or a plurality of directions on an orthogonal coordinate (Page 3, Paragraph 47 and Fig. 14).

Although, **Haraszti** does not disclose the shape being 3D, it would have been obvious to one skilled in the art at the time of the invention to know that the techniques disclosed for measuring the three-dimensional particles from the above object, allow the object under test to be either two or three dimensional shapes.

As to claim 3, Haraszti discloses all of the claimed limitations as applied to Claim 2 above **in addition Haraszti** discloses wherein the recognition means is an image recognition apparatus or a laser detector **1200** (Page 7, Paragraph 126 and Fig. 12).

As to claim 4, Haraszti discloses all of the claimed limitations as applied to Claims 2 or 3 above **in addition Haraszti** discloses wherein the recognition means **1300** recognizes the positional value of the identification particles **104** and a characteristic value of the identification particles **104** at the same time (Page 3, Paragraph 47 and Fig. 13).

Although **Haraszti fails to disclose** recognizing the positional and characteristic values at the same time, it would have been obvious to one skilled in the art at the time of the invention to know that the above detector that detects the positional values of the particles can also be configured to recognize various characteristics of the particles at the same time, to shorten the cycle time of the system.

As to claim 5, Haraszti discloses a step of generating a random type recognition object wherein the random type recognition object having identification particles **104** irregularly distributed within a shape is completed (Page 3, Paragraphs 46 & 52 and Figs. 1 and 2); a first recognition step wherein a positional value and a characteristic value on an orthogonal coordinate of the identification particles **204** within the random type recognition object produced in the random type recognition object-generating step are recognized from one or a number of directions on the orthogonal coordinate to complete a first data set (Page 3, Paragraphs 47 & 48 and Fig. 14); a second recognition step wherein the positional value and the characteristic value on the orthogonal coordinate of the identification particles **204** distributed within the random type recognition object in which the first data set is completed in the first recognition step are recognized from one or a number of directions on the orthogonal coordinate to complete a second data set (Fig. 14); and a step of determining whether the random type recognition object is genuine by determining whether the first data set completed in the first recognition step and the second data set completed in the second recognition step are coincident with each other (Page 6, Paragraph 112).

Although, **Haraszti** does not disclose the shape being 3D, it would have been obvious to one skilled in the art at the time of the invention to know that the techniques disclosed for measuring the three-dimensional particles from the above object, allow the object under test to be either two or three dimensional shapes.

2. Claims **6-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Haraszti et al.** (2007/0170257) in view of **Laskowski** (6,774,986). ('**Haraszti**')

As to claim 6, Haraszti discloses all of the claimed limitations as applied to Claim 5 above **except for** an eigen value-assigning step of assigning an eigen value to the first data set completed in the first recognition step and storing the assigned eigen value; and an eigen value-extracting step of searching a first data set coincident with the second data set completed in the second recognition step and extracting the eigen value assigned to the first data set whose data sets are coincident with each other, wherein the step of determining whether the random type recognition object is genuine includes the step of comparing the eigen value extracted in the eigen value-extracting step with an eigen value that is already known to determine whether the random type recognition object is genuine.

However, **Laskowski** teaches an eigen value-assigning step of assigning an eigen value to the first data set **38** completed in the first recognition step and storing the assigned eigen value (Column 11, lines 33-39 and Fig.4); and an eigen value-extracting step of searching a first data set **38** coincident with the second data set **40** completed in the second recognition step and extracting the eigen value assigned to the first data set **38** whose data sets are coincident with each other, wherein the step of determining whether the random type recognition object is genuine includes the step of comparing the eigen value extracted in the eigen value-extracting step with an eigen value that is already known (in set **40**) to determine whether the random type recognition object is genuine (Column 11, lines 41-48 and Fig. 4).

It would have been obvious tot one skilled in the art that the time of the invention to substitute the sensed value set of **Laskowski** for the eigen-value assigning and extracting step of the present invention in order to achieve the predictable results of providing a predetermined database of known authentic parameters, so that a comparative step can take place once the resulting data has been outputted.

As to claim 7, Haraszti discloses a recognition apparatus for allowing the purchaser to recognize a characteristic value from an recognition object that is distributed together with a product in order to determine whether the product is genuine (Page 5, Paragraph 83).

Haraszti fails to disclose an authentication database for storing a data of the recognition object containing information on a product inputted by a seller and an authentication-processing result; and an authentication server connected to the recognition apparatus through a network, wherein if the purchaser transmits the data of the recognition object recognized by the recognition apparatus through the network in order to make requests for determining whether the product purchased by the purchaser is genuine, the authentication server compares the data of the recognition object with the data stored in the authentication database and then transmits information on a product coincident with the data of the recognition object.

However, **Laskowski** teaches an authentication database **138** for storing a data of the recognition object containing information on a product inputted by a seller and an authentication-processing result (Column 32, lines 36-42 and Fig. 13); and an

authentication server connected to the recognition apparatus through a network, wherein if the purchaser transmits the data of the recognition object recognized by the recognition apparatus through the network in order to make requests for determining whether the product purchased by the purchaser is genuine, the authentication server compares the data of the recognition object with the data stored in the authentication database **138** and then transmits information on a product coincident with the data of the recognition object (Column 30, lines 39-47).

It would have been obvious to one skilled in the art at the time of the invention to include the database and server of **Laskowski** in the authentication system of **Haraszti** in order to provide suitable components in the authentication system that perform verification processes to ensure only genuine objects under test are allowed to be utilized.

As to claim 8, Haraszti in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 7 above **except for** wherein the authentication server comprises: a data receiving part that receives the data of the recognition object recognized by the recognition apparatus, from the purchaser; an authentication-processing unit that compares the data of the recognition object received from the data receiving part with the data stored in the authentication database to search information on a product coincident with the data of the recognition object; and a data transmitting part that transmits the information on the product searched by the authentication-processing unit to the purchase.

However, **Laskowski** teaches wherein the authentication server comprises: a data receiving part **124** that receives the data of the recognition object recognized by the recognition apparatus, from the purchaser (Column 25, lines 57-61); an authentication-processing unit that compares the data of the recognition object received from the data receiving part with the data stored in the authentication database to search information on a product coincident with the data of the recognition object; and a data transmitting part that transmits the information on the product searched by the authentication-processing unit to the purchase (Column 26, lines 1-13).

It would have been obvious to one skilled in the art at the time of the invention to include the data parts and authentication-processing unit of **Laskowski** in the authentication system of **Haraszti** in order to provide suitable components in the authentication system that perform verification processes to ensure only genuine objects under test are allowed to be utilized.

As to claim 9, Haraszti in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 8 above **except for** a history management unit that has a history received from the data transmitting part stored in the authentication database.

However, **Laskowski** teaches a history management unit that has a history received from the data transmitting part stored in the authentication database (Column 20, lines 2-9).

It would have been obvious to one skilled in the art at the time of the invention to include the history management unit of **Laskowski** in the authentication system of

Haraszti in order to endure a reference component in the system that can be reference to later for verification purposes, allowing validation checks to be carried out.

As to claim 10, Haraszti in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 8 above **in addition Haraszti** discloses wherein the recognition object is a random type recognition object in which identification particles **204** are irregularly distributed within a shape **100**, and a positional value and a characteristic value of the identification particles **204** distributed within the shape **100** are recognized from one or a plurality of directions by means of the recognition apparatus **1402 & 1404** (Page 3, paragraph 46 and Fig. 14).

And as to claim 11, Haraszti in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 7 above **in addition Haraszti** discloses wherein the recognition apparatus is a identification apparatus and comprises: a random type recognition object having identification particles **204** irregularly distributed within a shape **100**; and recognition means **1402 & 1404** for recognizing a positional value of the identification particles **204** distributed in the random type recognition object from one or a plurality of directions on an orthogonal coordinate (Page 3, paragraph 46 and Fig. 14).

As to claims 10 and 11, although, **Haraszti** does not disclose the shape being 3D, it would have been obvious to one skilled in the art at the time of the invention to know that the techniques disclosed for measuring the three-dimensional particles from the above object, allow the object under test to be either two or three dimensional shapes.

3. Claims **12-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Markantes et al.** (6,970,236) in view of **Laskowski** (6,774,986). (**'Markantes'**)

As to claim 12, Markantes discloses (a) generating a recognition object **16** distributed together with the product **14** so that the recognition object **16** has a characteristic value (Column 6, lines 56-58 and Fig. 2); (b) allowing a seller to recognize the characteristic value of the recognition object **16** using a recognition apparatus **40a/40b**, assign information on the product to the recognition object **16**, store the characteristic value held by the recognition object and the information on the product **14** assigned to the recognition object **16** and then input those information to the authentication system **42** (Column 10, lines 11-18); (c) allowing the purchaser to recognize the characteristic value from the recognition object **16** distributed together with the product using the recognition apparatus **40a/40b** in order to determine whether the purchased product **14** is genuine; (d) allowing the purchaser to transmit a data of the recognition object **16** recognized by the recognition apparatus **40a/40b** to the authentication system **42** through the network in order to make requests for determining whether the product is genuine (Column 11, lines 38-48 and Fig. 2); and (e) allowing the authentication system **42** to compare the data of the recognition object received through the network with the stored data to search information on the product **14** coincident with the data of the recognition object and then transmit the information on the product (Column 8, lines 32-36 and Figs. 2 and 3).

Although **Markantes** fails to disclose an actual purchaser or seller, it would have been obvious to one skilled in the art at the time of the invention to know that the user disclosed in the above invention can be either seller or purchaser depending on the inputted information or outputted results achieved.

As to claim 13, Markantes in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 12 above **except for** the step of storing the transmitted history in the authentication system.

However, **Laskowski** teaches the step of storing the transmitted history in the authentication system (Column 20, lines 2-9).

It would have been obvious to one skilled in the art at the time of the invention to include the storing method of **Laskowski** in the of in order to endure a reference component in the system that can be reference to later for verification purposes, allowing validation checks to be carried out.

And as to claim 14, Markantes in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 12 above **in addition Markantes** discloses wherein the recognition object **16** has an index assigned thereto, and if the purchaser transmits the data of the recognition object **16** recognized by the recognition apparatus **40a/40b** and its index to the authentication system **42** through the network in order to make requests for determining whether the purchased product **14** is genuine, the authentication system **42** searches data of the recognition object **16** that is coincident with the index received through the network to determine whether the searched data of

the recognition object **16** and the data of the recognition object **16** received through the network are coincident with each other and then transmits the determination result (Column 8, lines 32-36 and Figs. 2 and 3).

4. Claims **15-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Markantes et al.** (6,970,236) in view of **Laskowski** (6,774,986), as applied to claim **12** above, and further in view of **Haraszti et al.** (2007/0170257). ('**Markantes**' and '**Haraszti**')

As to claim 15, Markantes in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 12 above **except for** wherein the step (a) comprises generating a random type recognition object in which identification particles are irregularly distributed within a shape, and a positional value and a characteristic value of the identification particles distributed within the shape are recognized from one or a plurality of directions by means of the recognition apparatus.

However, **Haraszti** teaches wherein the step (a) comprises generating a random type recognition object in which identification particles are irregularly distributed within a shape **100**, and a positional value and a characteristic value of the identification particles **204** distributed within the shape are recognized from one or a plurality of directions by means of the recognition apparatus **1402 & 1404** (Page 3, paragraph 46 and Fig. 14).

It would have been obvious to one skilled in the art at the time of the invention to include the of in the of in order to be able to differentiate genuine and counterfeit objects so that only genuine objects under test will be allowed to be distributed.

Although, **Markantes** in view of **Laskowski** and further in view of **Haraszti** does not disclose the shape being 3D, it would have been obvious to one skilled in the art at the time of the invention to know that the techniques disclosed for measuring the three-dimensional particles from the above object, allow the object under test to be either two or three dimensional shapes.

As to claim 16, Markantes in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 12 above **except for** wherein the step (b) comprises recognizing a positional value and a characteristic value of identification particles within the random type recognition object produced in the step (a) from one or a plurality of directions on an orthogonal coordinate.

However, **Haraszti** teaches wherein the step (b) comprises recognizing a positional value and a characteristic value of identification particles **204** within the random type recognition object produced in the step (a) from one or a plurality of directions on an orthogonal coordinate (Page 3, paragraph 46 and Fig. 14).

It would have been obvious to one skilled in the art at the time of the invention to include the of **Haraszti** in the authentication method of **Markantes** in view of **Laskowski** in order to be able to differentiate genuine and counterfeit objects so that only genuine objects under test will be allowed to be distributed.

As to claim 17, Markantes in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 12 above **except for** wherein the step (c) comprises recognizing a positional value and a characteristic value of identification particles within the random type recognition object produced in the step (a) from one or a plurality of directions on an orthogonal coordinate.

However, **Haraszti** teaches wherein the step (c) comprises recognizing a positional value and a characteristic value of identification particles **204** within the random type recognition object produced in the step (a) from one or a plurality of directions on an orthogonal coordinate (Page 3, paragraph 46 and Fig. 14).

It would have been obvious to one skilled in the art at the time of the invention to include the of **Haraszti** in the authentication method of **Markantes** in view of **Laskowski** in order to be able to differentiate genuine and counterfeit objects so that only genuine objects under test will be allowed to be distributed.

As to claim 18, Markantes in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 12 above **except for** wherein the recognition apparatus is a 3D identification apparatus and comprises: a random type recognition object having identification particles irregularly distributed within a 3D shape; and recognition means for recognizing a positional value of the identification particles distributed in the random type recognition object from one or a plurality of directions on an orthogonal coordinate.

However, **Haraszti** teaches wherein the recognition apparatus is a identification apparatus and comprises: a random type recognition object having identification

particles irregularly distributed within a shape **100**; and recognition means **1402 & 1404** for recognizing a positional value of the identification particles **204** distributed in the random type recognition object from one or a plurality of directions on an orthogonal coordinate (Page 3, paragraph 46 and Fig. 14).

It would have been obvious to one skilled in the art at the time of the invention to include the recognition means of **Haraszti** in the authentication method of **Markantes** in view of **Laskowski** in order to be able to differentiate genuine and counterfeit objects so that only genuine objects under test will be allowed to be distributed.

Although, **Markantes** in view of **Laskowski** and further in view of **Haraszti** does not disclose the shape being 3D, it would have been obvious to one skilled in the art at the time of the invention to know that the techniques disclosed for measuring the three-dimensional particles from the above object, allow the object under test to be either two or three dimensional shapes.

And as to claim 19, Markantes in view of **Laskowski** discloses all of the claimed limitations as applied to Claim 12 above **in addition Laskowski** discloses the step of allowing a purchaser using the authentication system.

Although **Laskowski** does not teach the actual paying step, it would have been obvious to one skilled in the art at the time of the invention to know that the automated banking machine of **Laskowski** charges user who are not affiliated with that banking system, with a fee for not using their own banks allocated automated machines.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IYABO S. ALLI whose telephone number is (571) 270-1331. The examiner can normally be reached on M-Fr: 7:30am- 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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